

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Spectrum Policy Task Force Report	)	ET Docket No. 02-135
	)	
	)	

**SPRINT CORPORATION COMMENTS**

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## Summary

The Commission should take immediate steps to move towards more market-based spectrum usage by focusing its efforts on subjects that can be addressed within the next year, including:

- *Secondary Markets.* As the Task Force recommends, the Commission should adopt rules in its *Secondary Markets* proceeding to promote the development of new technologies and promote efficient spectrum use, particularly through spectrum leasing.
- *2.5 GHz Service Rules Revision.* Action on the pending 2.5 GHz rules revision proposal would promote the Task Force's recommendation that the Commission transition from "command-and-control" regulation. Such action will also promote the deployment of and competition in "last mile" broadband services.
- *Additional Flexible Use Spectrum.* The Commission should heed the Task Force's recommendation that additional flexible use spectrum under the exclusive use model be made available in the marketplace, particularly in the Advanced Wireless Services band.
- *Wi-Fi Spectrum.* The Commission should act on the Wi-Fi Alliance petition and identify additional spectrum for unlicensed services in a manner to accommodate Wi-Fi-related applications, consistent with the Task Force recommendation of using commons models in certain instances.

Sprint supports the Task Force recommendation that the Commission act to confirm spectrum users' rights. Such rights would include enforceable interference protection and renewal expectancy. The Commission must also preserve existing licensees' exclusive use rights, particularly for licensees who acquired licenses at auction; otherwise, the benefits of flexible use regulation, as well as service reliability, will be compromised. Licensees hold a legally protected interest in their licenses, particularly as to spectrum won at auction. Recent Commission actions in the ultra-wideband context underscore the risks to existing licensees' operations. Modification of existing licensees' rights will adversely affect their provision of spectrum-efficient, reliable service, and will signal that spectrum users' rights are vulnerable.

For these reasons, the Commission should not impose underlays or opportunistic "easements" in licensed spectrum and should avoid "retroactive easements," as the Task Force suggests. These proposals will jeopardize spectrum efficiency and compromise licensees' rights. The Commission must first address more basic questions such as the feasibility and enforceability of such policies and the impact on service to customers. Finally, while a better understanding of the noise floor would be useful for purposes of protecting existing licensees' rights, such data does not exist today and difficult methodological questions must first be resolved. The Commission should charge the Technological Advisory Council with developing a proposed testing methodology for public comment and Commission consideration.

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**SPRINT CORPORATION COMMENTS**

Sprint Corporation below responds to the Commission's invitation to submit comments on the Spectrum Policy Task Force Report.<sup>1</sup>

**I. THE COMMISSION CAN AND SHOULD TAKE IMMEDIATE STEPS TO  
MOVE TOWARDS MORE MARKET-BASED SPECTRUM USAGE**

The Task Force Report comprehensively examines a very complex subject, and in some areas recommends adoption of radical changes from the *status quo*. The most fundamental recommendation, however, suggests that the Commission move away from "command-and-control" spectrum management to a more market-based regulatory approach that will facilitate and expedite the deployment of new and innovative wireless services.<sup>2</sup> Sprint supports this core recommendation and urges the Commission to take immediate steps to foster more market-based spectrum usage. Further, given the scope of the recommendations, the Commission should focus

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<sup>1</sup> See *Public Notice*, Commission Seeks Comment on Spectrum Policy Task Force Report, ET Docket No. 02-135, FCC 02-322 (Nov. 25, 2002); see also *Public Notice*, DA 02-6544 (Dec. 11, 2002) (extending comment date to January 27, 2003).

<sup>2</sup> See Spectrum Policy Task Force, Report, ET Docket No. 02-135, at 15, 37 (Nov. 2002) ("Task Force Report").

its resources on those subjects identified below that could be addressed within the next year and which, if adopted, could begin to change the way that spectrum is used and provide new benefits to American consumers.

**A. The Commission Should Give Highest Priority to Completing Its Secondary Markets Rulemaking**

Sprint agrees with the Task Force that “an essential first step” to “a flexible and efficient regulatory regime” is “that the Commission take action to adopt rules in the ongoing Secondary Markets proceeding.”<sup>3</sup> The Task Force appropriately recognizes that adopting rules to facilitate a vigorous secondary market is a “fast and efficient” mechanism for increasing access to spectrum for those who value it most.<sup>4</sup>

The Commission determined over two years ago that “a robust and effective secondary market for spectrum usage rights could help alleviate spectrum shortages by making unused or underutilized spectrum held by existing licensees more readily available to other users and uses and help to promote the development of new, spectrum efficient technologies.”<sup>5</sup> The Commission concurrently commenced a rulemaking proposing concrete steps in order to “eliminate unnecessary impediments to the operation of secondary market processes.”<sup>6</sup> The

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<sup>3</sup> See *id.* at 57.

<sup>4</sup> *Id.*

<sup>5</sup> *Principles for Promoting Efficient Use of Spectrum by Encouraging the Development of Secondary Markets, Policy Statement*, 15 FCC Rcd 24178, 24178-79 ¶ 2 (2000).

<sup>6</sup> *Promoting Efficient Use of Spectrum through Elimination of Barriers to the Development of Secondary Markets*, WT Docket No. 00-230, *Notice of Proposed Rulemaking*, 15 FCC Rcd 24203, 24204 ¶ 3 (2000) (“*Secondary Markets NPRM*”).

comments filed in response revealed widespread support for this initiative.<sup>7</sup> Similarly, nearly one year ago, the Administration “urge[d] the Commission to act promptly to conclude this proceeding and to move expeditiously to permit leasing and eliminate other barriers to the development of secondary markets for spectrum.”<sup>8</sup>

The Spectrum Policy Task Force has since confirmed that the “best means” of promoting spectrum access and economic efficiency would be for the Commission to adopt “efficient secondary market mechanisms”:

The secondary markets model takes advantage of the flexibility and adaptability of the market to solve access problems. Because licensees have economic incentives to use spectrum in ways that will yield the highest return to them, they will generally find it advantageous to allow others to use unused portions of their spectrum if they are adequately compensated.<sup>9</sup>

The recent report submitted by the Wireless Telecommunications Bureau to the Commissioners suggests that completion of the secondary markets rulemaking is at the top of the Bureau’s agenda for year 2003.<sup>10</sup> Sprint urges the Commission to complete this proceeding so that market forces can facilitate greater spectrum efficiency and flexibility through leasing.

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<sup>7</sup> *Facilitating the Provision of Spectrum-Based Services to Rural Areas*, WT Docket No. 02-381, *Notice of Inquiry*, FCC 02-325, at ¶ 14 (Dec. 20, 2002)(“[R]ural telcos . . . have expressed interest in gaining access to spectrum usage rights through secondary markets.”). In this regard, prompt action in the *Secondary Markets NPRM* could moot much of this *Notice of Inquiry*.

<sup>8</sup> Letter from the Hon. Nancy J. Victory, NTIA Assistant Secretary for Communications and Information, to the Hon. Michael K. Powell, FCC Chairman, WT Docket No. 00-230 (March 7, 2002).

<sup>9</sup> Task Force Report at 21, 57.

<sup>10</sup> See Wireless Telecommunications Bureau, Presentation to the Commission, at 18 (Open Meeting, Jan. 15, 2003).

**B. The Commission Should Act on the 2.5 GHz Service Rules Revision Proposal**

Sprint submits that the pending 2.5 GHz rules revision proposal epitomizes the Task Force's recommendation to transition from "command-and-control" to more market-based spectrum use models.<sup>11</sup> Adoption of the 2.5 GHz proposal will maximize the potential of this spectrum and will promote the Commission's objective of promoting deployment of broadband services.

Chairman Powell told Congress earlier this month that "broadband deployment is *the* central communications policy objective in America today":

If the United States is to: (1) empower consumers to enjoy the full panoply of benefits of the information age; (2) provide a source for long-term, sustainable economic growth for our country; and (3) continue to be the global leader in information and network technologies – then, as Congress recognized in the Act, the development and deployment of broadband infrastructure will play a vital role.<sup>12</sup>

The Chairman declared that his objective is to take steps to address the "last mile problem": "Our goal is to encourage multiple pipes to the home in the future broadband world."<sup>13</sup>

The broadband market today is dominated by two incumbent providers using wireline technology: cable companies and local exchange carriers. The most promising alternative to these incumbent facilities is the use of spectrum to address the last mile problem. As the

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<sup>11</sup> See Task Force Report at 15, 37.

<sup>12</sup> Written Statement of the Hon. Michael K. Powell, FCC Chairman, on Competition Issues in the Telecommunications Industry, before the Senate Committee on Commerce, Science, and Transportation, at 12 (Jan. 14, 2003)(emphasis added).

<sup>13</sup> *Id.* at 13.

Chairman has recognized, “Spectrum-based paths to homes and businesses hold great promise for the delivery of high speed internet.”<sup>14</sup>

Sprint and other licensees in the 2.5 GHz ITFS/MDS bands are currently evaluating second-generation technologies that promise to provide a reliable and cost-effective alternative to wired last mile connections. However, the challenges Sprint and other licensees face are not just technical and economic, but also regulatory: the current service rules governing the 2.5 GHz band are based on decades-old broadcast-style command-and-control regulation that inhibits the deployment of advanced wireless communications broadband networks.

Last October, a majority of the licensees in the 2.5 GHz band collaboratively presented a proposal to revise the regulatory structure applicable to the 2.5 GHz band so as to remove regulatory restraints that threaten to prevent the widespread deployment of a third, facilities-based broadband network to the home.<sup>15</sup> The Wireless Telecommunications Bureau promptly requested comment on this comprehensive proposal, and the comment cycle has been completed.<sup>16</sup>

Sprint urges the Commission to commence and complete promptly a rulemaking proceeding on this proposal. Deployment of new and innovative services via construction of a “third pipe” to American homes would bring enormous benefits to consumers in the form of

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<sup>14</sup> Remarks of Michael K. Powell, FCC Chairman, at the Silicon Flatirons Telecommunications Program, “Broadband Migration III: New Directions in Wireless Policy” (Oct. 30, 2002).

<sup>15</sup> See Wireless Communications Association, International, Inc., the National ITFS Association, and the Catholic Television Network, “A Proposal for Revising the MDS and ITFS Regulatory Structure” (Oct. 7, 2002).

<sup>16</sup> See *Public Notice*, Wireless Telecommunications Bureau Seeks Comment on Proposal to Revise Multichannel Multipoint Distribution Service and the Instructional Television Fixed Service Rules, RM-10586, DA 02-2732 (Oct. 17, 2002).



increased choices and reduced prices. Outdated regulations that pose obstacles to the deployment of new competitive broadband infrastructures need to be removed expeditiously.

**C. The Commission Should Make Additional “Flexible Use” Spectrum Available in the Marketplace**

Sprint supports the Task Force’s recommendation that the Commission assign additional “flexible use” spectrum, particularly under the “exclusive use” model of market-based regulation. The Commission’s allocation of spectrum to flexible use, beginning with the exclusive use PCS band, has been a resounding success. Less than eight years ago, the Commission determined that cellular carriers were earning “economic rents of significant proportions” and that it was only “conjecture” whether wireless services could “eventually compete with wireline telephone service.”<sup>17</sup> PCS carriers, armed with flexible use spectrum, have revolutionized the wireless market and are revolutionizing the entire communications market. Chairman Powell has observed that by “any standard,” the CMRS market is “the most competitive market in the communications industry.”<sup>18</sup> The Chairman has further noted that the most significant competition to incumbent LEC voice services has come not from competitive LECs, but from wireless phone service.<sup>19</sup>

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<sup>17</sup> *First Annual CMRS Competition Report*, 10 FCC Rcd 8844, 8869 ¶ 75, 8871 ¶ 81 (1995).

<sup>18</sup> *2000 Biennial Regulatory Review – Spectrum Aggregation Limits*, 16 FCC Rcd 22668, 22727 (2001). (Separate Statement of Chairman Powell); *see also* Written Statement of the Hon. Kathleen Q. Abernathy, FCC Commissioner, on the State of Competition in the Telecommunications Industry, before the Senate Committee on Commerce, Science, and Transportation, at 2 (Jan. 14, 2003).

<sup>19</sup> *See* Written Statement of the Hon. Michael K. Powell, FCC Chairman, on Competition Issues in the Telecommunications Industry, before the Senate Committee on Commerce, Science, and Transportation, at 4 (Jan. 14, 2003).

Consumers are beginning to “cut the cord.” . . . Licensed wireless services have been a resounding success at introducing facilities-based local competition.<sup>20</sup>

The experience with the PCS band, where the Commission had the foresight to grant flexible use rights, concretely demonstrates the benefits of providing flexible use with any new spectrum allocation or reallocation.

The Commission recently allocated an additional 90 MHz of spectrum for flexible use purposes, the so-called “3G” or Advanced Wireless Services (“AWS”) band.<sup>21</sup> It also commenced a rulemaking proceeding to develop service rules for this new band.<sup>22</sup> Sprint urges the Commission to complete this service rules proceeding promptly, and well ahead of the planned auction date.

**D. The Commission Should Promptly Commence a Rulemaking on the Wi-Fi Alliance Petition to Allocate Additional Spectrum for Unlicensed Devices**

The Task Force also recommends that the Commission move toward a market-based “commons” model.<sup>23</sup> Sprint supports the identification of additional dedicated spectrum for unlicensed services, specifically in a manner to accommodate Wi-Fi-related applications.

One year ago, the Wi-Fi Alliance (formerly the Wireless Ethernet Compatibility Alliance) petitioned the Commission to allocate an additional 255 MHz of spectrum in the 5

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<sup>20</sup> Remarks of Michael K. Powell, FCC Chairman, at the Silicon Flatirons Telecommunications Program, “Broadband Migration III: New Directions in Wireless Policy (Oct. 30, 2002).

<sup>21</sup> *See Allocation of Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services*, ET Docket No. 00-258, *Second Report and Order*, FCC 02-304 (Nov. 15, 2002).

<sup>22</sup> *See Service Rules for Advanced Wireless Services in the 1.7 GHz and 2.1 GHz Bands*, ET Docket No. 02-353, *Notice of Proposed Rulemaking*, FCC 02-305 (Nov. 22, 2002).

<sup>23</sup> Task Force Report at 54.

GHz band to Unlicensed National Information Infrastructure (“U-NII”) devices.<sup>24</sup> This petition received widespread support. Nevertheless, the Commission has yet to commence a rulemaking proceeding. More recently, legislation has been introduced that would require the Commission to allocate on an expedited basis additional spectrum to unlicensed devices.<sup>25</sup> Sprint encourages the Commission to release a notice of proposed rulemaking on the Wi-Fi Alliance petition. This is a matter the Commission can, and should, address.

## **II. THE COMMISSION MUST CLEARLY DEFINE SPECTRUM USERS’ RIGHTS AND PRESERVE THOSE OF EXISTING EXCLUSIVE USE LICENSEES**

Sprint wholeheartedly agrees with the Task Force recommendation that the Commission clearly and exhaustively define spectrum users’ rights. For exclusive use licensees such as broadband PCS providers, the flexible use rights enumerated in the Report – particularly enforceable interference protection – and a strong renewal expectancy provide the market with the certainty necessary for investment in new technologies.<sup>26</sup> It is also critically important that “exclusive use” mean what it implies – exclusivity<sup>27</sup> – and that the Commission not erode these rights by regulatory fiat in the name of promoting the unproven spectrum sharing schemes discussed below.

Importantly, the Commission does not operate with a clean slate in developing a next generation spectrum policy. Incumbent radio licensees hold certain rights in their spectrum, and

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<sup>24</sup> See Wireless Ethernet Compatibility Alliance, Petition for Rulemaking, RM-10371 (Jan. 15, 2002).

<sup>25</sup> See Jumpstart Broadband Act, S. 159, 108<sup>th</sup> Cong., § 2 (2003).

<sup>26</sup> Task Force Report at 18.

<sup>27</sup> See Sprint Comments in ET Docket No. 02-135, filed July 8, 2002, at 8-9.

this is particularly the case with regard to licensees that have paid the federal government valuable consideration for the spectrum they acquired. Indeed, it is in large part because broadband PCS licensees have benefited from many of the flexible use and interference protection rights the Task Force recommends that the Commission's broadband PCS experience has been so successful. It is therefore important that the nation's spectrum policy acknowledge these existing rights and take them into account. The public interest would not be served if a proposed next generation spectrum policy is delayed by years of litigation. More fundamentally, compromising existing licensees' rights would jeopardize the reliable, ubiquitous wireless services on which millions of American consumers rely.

The Communications Act is clear that radio licensees do not *own* the spectrum licensed to them.<sup>28</sup> Nonetheless, courts have recognized even before licenses were auctioned that licensees hold a substantial, legally protected interest in their licenses. As the D.C. Circuit held shortly after the Communications Act was enacted, "the Act does definitively recognize the *rights* of license holders":

It is equally apparent that the granting of a license by the Commission creates a highly valuable property right, which, while limited in character, nevertheless provides the basis upon which large investments of capital are made and large commercial enterprises are conducted. As it is the purpose of the Act to secure the use of the channels of radio communications by private licenses under a competitive system, those licensees must be protected in use . . . from arbitrary action by the Commission, itself, in the exercise of its regulatory power.<sup>29</sup>

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<sup>28</sup> See 47 U.S.C. § 301 (It is the purpose of this chapter . . . to provide for the use of such channels, but not the ownership thereof . . .").

<sup>29</sup> *Yankee Network v. FCC*, 107 F.2d 212, 216-17 (D.C. Cir. 1939)(emphasis in original); see also *L.B. Wilson v. FCC*, 170 F.2d 793, 798 (D.C. Cir. 1948).

These vested rights were recognized at a time when licenses were awarded for free. A licensee's legal interests are even more substantial where it pays the government for its license. Indeed, given that the federal government has received valuable consideration for issuing PCS and MMDS licenses (well over \$3 billion from Sprint alone), these licenses have effectively become a contract between the government and the licensee. As the Commission recently advised the Supreme Court, PCS licensees possess "exclusive right to the spectrum" and these "exclusive licensing arrangements" at minimum constitute executory contracts:

Under FCC licenses, performances are owed by both the licensee and the FCC. While [licensees] must obey FCC rules and make the required [auction] payments, the FCC must protect [licensees'] exclusive right to the spectrum and refrain from authorizing others to use that spectrum. Courts generally conclude that analogous exclusive licensing arrangements made by private parties for commercial reasons are "executory."<sup>30</sup>

In this regard, courts have repeatedly held that the government becomes liable upon breach of contract, even when the contracting agency is prevented from honoring its bargain as a result of subsequent enactments of Congress.<sup>31</sup>

The risk to licensees when exclusive use rights are arbitrarily compromised is illustrated by recent experience in the ultra-wideband ("UWB") context. Sprint has adopted receiver standards in building its network; specifically, it builds its CDMA network so that its receivers

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<sup>30</sup> *FCC v. NextWave Personal Communications*, Nos. 01-653 and 01-657, Brief for the Federal Communications Commission, at 46 n.10 (May 6, 2002).

<sup>31</sup> *See, e.g., Mobil Oil v. United States*, 530 U.S. 604 (2000)(Department of Interior breached oil lease contracts even though the breach was caused by subsequent act of Congress); *United States v. Winstar*, 518 U.S. 839 (1996)(Government contractually liable for damages which arose when Congress amended the law so as to deny certain savings and loans regulatory treatment to which the government had contractually committed itself); *Hughes Communications v. United States*, 998 F.2d 853 (Fed. Cir. 1993)(NASA financially responsible to satellite company for changes in policy triggered by sovereign government action).

can operate at a thermal noise floor level of -105 dBm. OET has recently taken the position that this Sprint network design is “unreasonable”:

[I]t is not reasonable to design a communications system to operate at or near the thermal noise floor of the receiver. . . . The statement from Sprint PCS that PCS systems operate at the -105 dBm thermal noise floor is unreasonable.<sup>32</sup>

OET remarkably reached its conclusion even though it conceded it had no supporting facts: “We do not have any data regarding the actual signal levels employed in PCS systems.”<sup>33</sup>

Although Sprint has demonstrated that OET’s technical analysis is flawed and reveals a fundamental misunderstanding of CDMA technology,<sup>34</sup> Sprint is disturbed by the apparent view that the introduction of new services justifies technical decisions that seriously degrade an incumbent licensee’s services – the very definition of “harmful interference.”<sup>35</sup>

Sprint paid the federal government over \$3 billion for the right to use its PCS frequencies, and there is nothing in the licenses or, for that matter, the Commission’s rules, specifying that Sprint must use a particular receiver sensitivity. In terms of the Task Force recommendations, the Commission has essentially countenanced an underlay easement that restricts a licensee’s flexible use of its spectrum. The Commission may not reasonably tell Sprint, now that it has invested over \$10 billion to build its nationwide network, that it must begin using a receiver sensitivity of -96 dBm rather than -105dBm, and as a result, must

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<sup>32</sup> OET Staff, *Potential Interference to PCS from UWB Transmitters Based on Analyses from Qualcomm*, ET Docket No. 98-153, at 4, 5 and 6 (May 3, 2002).

<sup>33</sup> *Id.* at 6.

<sup>34</sup> See Sprint Reconsideration Petition, ET Docket No. 98-153 (June 17, 2002), Attachment 1, Operational Overview of the IS-95 Downlink.

<sup>35</sup> See 47 C.F.R. § 2.1(c).

redesign its network to use smaller cells. The imposition of receiver standards at this time would constitute an impermissible modification of Sprint's PCS licenses and a reduction of Sprint's right to use the PCS bands. This the government may not do – at least without exposing itself to financial liability for the consequences of its action. In any event, such modification of existing licensees' rights will adversely affect their provision of spectrum-efficient, reliable service to millions of customers.

For these reasons, the Task Force recommendation that the Commission "be sensitive to" incumbent spectrum users' reliance interests understates the extent of the Commission's obligations. Protection of flexible use rights, *including* those of incumbent flexible use licensees, is a critical component of a market-based spectrum policy. Task Force recommendations for shared spectrum use between incumbent flexible use licensees and new unlicensed users, if implemented without accounting for reliance interests of the former, will signal to capital markets, consumers and other current and future spectrum users that spectrum users' rights are vulnerable. The Commission's actions in the UWB proceeding represent a step in the wrong direction. Even if licensees' rights vis-à-vis other spectrum users are enforced, a market-based approach will not succeed if the Commission itself routinely compromises users' rights after-the-fact.

### **III. THE COMMISSION SHOULD NOT IMPOSE UNDERLAYS OR OPPORTUNISTIC “EASEMENTS” IN LICENSED SPECTRUM**

#### **A. The Commission Should Defer Consideration of Underlay and Opportunistic Easements and In No Case Should Such Easements Be Imposed In Already-Licensed Spectrum**

The Task Force recommends that the Commission pursue an interference temperature approach as a means of “increas[ing] access to the band for other users or devices.”<sup>36</sup> In particular the Task Force recommends that in bands where an interference temperature threshold is established, the Commission use an easement approach to create spectrum usage rights for unlicensed devices that operate below the threshold.<sup>37</sup> Imposing such a regime on existing carriers in this manner, however, will raise the very issues discussed above, including licensee rights.

In addition, these proposals will jeopardize the Commission’s spectrum efficiency goals. Wireless carriers have ample incentive to maximize the spectrum efficiency of the air interface through sophisticated signal processing techniques, network design, and tight power control.<sup>38</sup> Sprint’s CDMA network has been designed in this manner, and migration to new innovative 3G services makes the need for full flexibility and genuinely exclusive use of its spectrum even more acute. As explained in Sprint’s earlier comments in this docket, adding additional external interference after a CDMA network is built will reduce network capacity and degrade coverage.<sup>39</sup> The Commission should heed the recommendation in the Report that it “[a]ddress

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<sup>36</sup> Task Force Report at 30.

<sup>37</sup> *Id.* at 56.

<sup>38</sup> Sprint Comments at 18-19.

<sup>39</sup> *Id.* at 19.



underlay/easement rights in transition bands on a going forward basis (avoid retroactive easements).”<sup>40</sup>

For the same reasons, the Commission should heed the Task Force’s recommendation that it defer consideration of “opportunistic” easements above the interference temperature. In recommending that the Commission “be sensitive to the potential impact of allowing easement-based access by opportunistic devices on the expectations, business plans, and investment made by licensed spectrum users,” the Task Force understated the Commission’s obligations to account for incumbent licensees’ rights, as discussed above.<sup>41</sup> Before defining opportunistic users’ access rights, as the Task Force recommends, the Commission must address more fundamental questions, such as the feasibility and enforceability of such an approach and the impact on service to current and future customers.

**B. Noise Floor Data Is Nonexistent and the Commission Must Proceed with Great Care in Adopting a Mechanism for Measurement**

The Task Force recommends “as a long term strategy” that the Commission utilize the concept of an “interference temperature,” which would measure the RF power available at a receiver and which the Commission might use to quantify and manage harmful interference.<sup>42</sup> The Task Force acknowledges that before the interference temperature metric could serve as a useful management tool, there is a “need to acquire data on the RF noise floor for different

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<sup>40</sup> Task Force Report at 11.

<sup>41</sup> *Id.* at 58.

<sup>42</sup> *See id.* at 27-30.

frequency bands and geographic regions.”<sup>43</sup> Although Sprint does not endorse the interference temperature proposal, it does believe that a better understanding of the noise floor would be useful for purposes of protecting existing licensees’ rights.

Noise floor data largely does not exist today.<sup>44</sup> As the Chief of OET has reportedly noted, collecting such noise floor data is “profoundly difficult,” if only because there is “no such thing as a ‘noise floor.’ There are noise *floors* and they vary from environment to environment” – both as to different geographic areas and as to different spectrum bands.<sup>45</sup> The Task Force recommends that the Commission undertake “a systematic study of the RF noise floor.”<sup>46</sup> Recognizing that the Commission does not have the resources to conduct such a study by itself, the Task Force further recommends that the Commission (a) adopt “a standard methodology for measuring the noise floor,” and (b) create “a public/private partnership” for the conduct of noise floor studies and archiving of data.”<sup>47</sup>

Sprint agrees that collecting such data would prove extremely useful. Importantly, such data would be useful to preserve existing licensees’ interference protection rights. Sprint also supports the Task Force recommendation that the Commission “adopt a standard methodology for measuring the noise floor.” This approach, incorporated by all testing parties, would ensure

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<sup>43</sup> *Id.* at 33.

<sup>44</sup> For example, the Chief of the Office of Engineering and Technology (“OET”) reportedly stated, “There’s a profound lack of data” on noise floor levels. COMMUNICATIONS DAILY, “FCC UWB Test Report Due Out Shortly” (Oct. 18, 2002).

<sup>45</sup> COMMUNICATIONS DAILY, *FCC UWB Test Report Due Out Shortly* (Oct. 18, 2002) (emphasis added).

<sup>46</sup> Task Force Report at 5 and 33.

<sup>47</sup> *Id.* at 28.

that the results of one study can be reasonably compared to the results of other studies, whether in different bands or in different geographic areas.<sup>48</sup> Sprint submits that the preferable course would be for the Commission to charge the Technological Advisory Council to develop a proposed testing methodology for public comment and Commission consideration rather than for the Commission to attempt to adopt such a standard on its own.<sup>49</sup>

### CONCLUSION

For the foregoing reasons, Sprint respectfully requests that the Commission take actions consistent with the comments set forth above.

Respectfully submitted,  
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<sup>48</sup> *Id. at* 28.

<sup>49</sup> The recent dispute over the methodology used by the OET in its ambient noise study of the GPS band confirms the need for a testing methodology that receives widespread support.